

**In the Claims:**

Cancel Claims 1-3, 34-46, 49 and 50; add Claims 64-66, and amend claims 47, 51-58, 60, and 62.

1-46 (Cancelled).

47. (Currently amended). The method according to claim 46 64, wherein at least one capacitive measuring sensor (17) of the specimen carrier (14) which is associated with a memory location and/or a volume(15) for a specimen is connected to a capacitance measuring circuit for a capacitive measurement.

48. (Previously presented). The method according to claim 47, wherein capacitor plates (17) formed by the plastic-based electrically conductive material of which the specimen carrier (14) is partially made are connected to the capacitance measuring circuit for a capacitative measurement.

49-50. (Canceled).

51. (Currently amended). A apparatus for tempering at lease one sample, comprising

- ~~a specimen carrier [(1,)]14~~ one of pipette tip and syringe made of plastic-based, at least partially electrically conductive material for at least one specimen, and
- a device (6, 7, 9) for applying an electric current and/or electric voltage to the plastic-based electrically conductive material in order to cause a resistance heating of at least some part of the plastic-based electrically conductive material, which heating heats a specimen disposed ~~on the specimen carrier~~ in the one of the pipette tip and syringe [(1,)]-14.

52. (Currently amended). The apparatus according to claim 51, wherein, at least one wall of the ~~specimen carrier [(1,)]-14~~ one of pipette tip and syringe defining a memory location and/or memory volume (5, 15) for the specimen or a portion or a layer thereof is made of the plastic-based electrically conductive material.

53. (Currently amended). The apparatus according to claim 51, wherein the ~~specimen carrier (14)~~ one of pipette tip and syringe has at least one capacitive measuring sensor (17) associated with a memory location and/or memory volume (15) for a specimen to measure the volume of at least one

specimen, and a capacitance measuring circuit connected to the capacitive measuring sensor (17).

54. (Currently amended). The apparatus according to claim 51, wherein the capacitive measuring sensor has capacitor plates (17) which are formed from a ~~plastic-based electrically conductive material~~ same material of which the one of pipette tip and syringe specimen carrier (14) is partially made.

55. (Currently amended). The apparatus according to claim 51, wherein the one of pipette tip and syringe specimen carrier ~~[(1,)]-14)~~ is made of one or more integrally interconnected plastic materials.

56. (Currently amended). The apparatus according to claim 51, wherein the one of the pipette tip and syringe specimen carrier ~~[(1,)]-14)~~ and the devices (6, 7, 9) for applying an electric current and/or an electric voltage and/or the capacitance measuring circuit have electric contacts (8, 9) via which at least one electric current and/or electric voltage can be applied to the one of the pipette tip and syringe specimen carrier ~~[(1,)]-14)~~ and/or is adapted to be connected to the capacitive measuring sensor (17) via the capacitance measuring circuit.

57. (Currently amended). The apparatus according to claim 51, wherein the devices (6, 7, 9) for applying an electric current and/or an electric voltage and/or the capacitance measuring circuit are adapted to be connected to the one of the syringe and pipette tip ~~specimen carrier~~ ~~[(1,)]-14)~~ via a needle bed adapted (19).

58. (Currently amended). The apparatus according to claim 51, which has an apparatus portion which comprises the device (6, 7, 9) for applying an electric current and/or an electric voltage and/or the capacitance measuring circuit and/or the needle bed adapter (19) and is separable from one of the pipette tip and syringe ~~specimen carrier~~ ~~[(1,)]-14)~~.

59. (Previously presented). The apparatus according to claim 51, wherein the separable apparatus portion (6, 7, 9) is stationary and/or portable.

60. (Currently amended). The apparatus according to claim 58, wherein the separable apparatus portion (6, 7, 9) comprises a ~~pipetting device~~ and/or a proportioning device, and/or spectrometer, and/or device for treating reaction vessel, and/or for treating centrifuge vessel and/or for treating microtitration plates.

61. (Previously presented). The apparatus according to claim 51, wherein the device (6, 7, 9) for applying an electric current and/or electric voltage has a direct-current source and/or an alternating-current source and/or a direct voltage and/or an alternating-current source.

62. (Currently amended). The apparatus according to claim 51, wherein the one of the pipette tip and syringe ~~specimen carrier-[(1,)]-14~~ and/or the device (6, 7, 9) for applying an electric current and/or an electric voltage have one or more temperature measuring devices (11, 12, 13).

63. (Previously presented). The apparatus according to claim 51, wherein the device (6, 7, 9) for applying an electric current and/or electric voltage has a device for controlling the heating of the specimen.

64. (New). A method for tempering at least one sample, wherein a plastic-based electrically conductive material of a specimen carrier (1, 14) consisting at least partially of this material for at least one specimen is applied to by an electric current/an electric voltage which causes a resistance heating of at least one portion of the plastic-based electrically conductive material, which resistance heating heats a specimen disposed on the specimen carrier (1, 14),

and wherein a volume of the specimen is capacitively measured on the specimen carrier.

65. (New). A method for tempering at least one sample, wherein a plastic-based electrically conductive material of a specimen carrier (1, 14) consisting at least partially of this material for at least one specimen is applied to by an electric current/an electric voltage which causes a resistance heating of at least one portion of the plastic-based electrically conductive material, which resistance heating heats a specimen disposed on the specimen carrier (1, 14), and wherein the specimen (14) is contacted by means of electrically conductive needles (20) in order to apply the electric current/the electric voltage to the specimen carrier (14) for resistance heating and/or to connect the capacitance measuring circuit to the capacitive measuring sensor (17).

66. (New). A method for tempering at least one sample, wherein a plastic-based electrically conductive material of pipette tip or syringe consisting at least partially of this material for at least one specimen is applied to by an electric current/an electric voltage which causes a resistance heating of at least

one portion of the plastic-based electrically conductive material, which resistance heating heats a specimen disposed on the pipette tip or syringe .